

REMARKS:

Claims 49 and 51-67 are in the case and presented for consideration.

Claims 49, 51-64 and 66-67 have been amended.

Claim 50 has been canceled.

CLAIM OBJECTIONS

Claims 58-59 have been amended so that they are now independent. Claim 63 has been amended to further limit claim 49. Additionally, all the informalities in claims 49-67 have been corrected.

Therefore all claims are now believed to be in proper form.

REJECTION OF CLAIMS UNDER 35 U.S.C. §112

Claims 49-67 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 49, 54 and 66 have been amended in accordance with Examiner's comments and claim 50 has been canceled.

Therefore, all claims are now believed to comply with 35 U.S.C. 112, second paragraph.

REJECTION OF CLAIMS UNDER 35 U.S.C. §102(b)

Claims 49-51 were rejected under 35 U.S.C. 102(b) as being anticipated by European Patent Application EP 0800915 filed by Shepard et al. (“Shepard”) taken in view of the evidence given in DUPONT Surlyn (“DUPONT”).

Applicant respectfully traverses the Office's rejections that the claims of the present application are anticipated by the cited prior art.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See, e.g., *Verdeqaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). To constitute anticipation, all the claimed elements must be found in exactly the same situation and united in the same way to perform the identical function in a single unit of prior art. *General Elect. Co. v. Nintendo Co., Ltd.*, 179 F.3d 1350 (Fed. Cir. 1999). Moreover, it is a settled point of law that dependent claims include all the elements of the claims from which they depend.

Shepard fails to disclose at least three critical elements claimed in currently amended independent claims 49, 58 and 59

Although the shrinkable film represented in Fig. 2 of Shepard has seven layers, it fails to disclose an outer moisture barrier layer.

Additionally, Shepard also fails to disclose 3 moisture barrier layers. In Shepard, the outer layer (26) is a sealant layer whereas the other outer layer (25) is a nylon layer.

According to the Shepard's invention, said "layer 25 is not a moisture barrier" and thus does not act as a moisture barrier layer. Col. 11, Ln. 54-55. Consequently, Shepard's seven-layer film comprises at most two moisture barrier layers. (21 and 22).

By contrast, the film claimed in currently amended independent claim 49 comprises a nylon outer layer (A) that also acts as a moisture barrier layer. (Claim 49, layer G). Further, since both nylon layer C and E are also moisture barrier layers, the presently claimed film comprises three moisture barrier layers as opposed to Shepard's two.

Furthermore, Shepard's nylon outer layer comprises an amorphous nylon copolymer, thereby decreasing the degree of crystallinity of the polymer. Additionally, said amorphous nylon copolymers are ineffective as moisture barrier layers. Col. 11, Ln. 43-44; Col. 8, Ln. 55-57.

The whole film exhibits improved Optical properties by using a specific technique, that is the water quenching method which leads to control of the degree of crystallinity of the polymeric film. Col. 4, Ln. 28-29, 44-47; Col. 8, Ln. 45-49; Col. 15, Ln. 13-15. In particular, said method prevents the development of a crystalline structure, thereby producing a transparent solid. Col. 8, Ln. 47-49.

Unlike the film disclosed in Shepard, the outer layer of the presently claimed film is made up of nylon 6 or nylon 6/66, which are semicrystalline polymers that exhibit a higher degree of crystallinity than the nylon outer layer of Shepard. In fact, the semicrystalline nylon polymer of the present invention is not blended with amorphous nylon polymers and does not undergo any water quenching method to decrease the degree of crystallinity in the polymer.

Therefore, because Shepard fails to disclose at least three critical elements claimed in currently amended independent claims 49, 58 and 59; and because all other claims depended from claim 49, Shepard cannot anticipate any claims currently in the case.

REJECTION OF CLAIMS UNDER 35 U.S.C. §103(a)

Claims 59 and 63 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard.

Applicant respectfully traverses the Office's rejections that the claims of the present application are obvious in view of the cited prior art.

In addition to the above mention elements claimed in currently amended independent claims 49, 58 and 59, Shepard also fails to disclose several other elements of the presently claimed invention.

Furthermore, the object of Shepard is to produce multilayer films having improved capacity of shrinking and wrapping, combined with improved optical properties such as gloss, clarity and lesser haze. Col. 4, Ln. 32-34, 38-39.

These physical properties can be achieved through use of amorphous nylon copolymers which as explained in Shepard, "are characterized by a lack of crystallinity," Consequently, these copolymer, do not exhibit any "endotherm crystalline melting point." Col. 8, Ln. 28-32. The amorphous nylon copolymers are obtained by using the quenching method which is carried out only after the film is cooled by the application of air and

consists of applying water directly to the film to quench it rapidly which thereby prevents the development of a crystalline structure and produces a transparent solid. In other words, the said method makes a semicrystalline nylon copolymer amorphous. Col. 4, Ln. 44-50; Col. 8, Ln. 45-49.

Shepard's patent also teaches that nylon outer layer (15), as well as layer (25) "is not a moisture barrier." Col. 9 and 11, Ln. 54-55. It also teaches that amorphous nylon copolymers, like other nylons, are ineffective as moisture barrier layers. Col. 8, Ln. 55-57.

The outer layers are preferably a blend consisting of the said amorphous nylon copolymer and any of various nylons including nylon 6, and nylon 6,6 and nylon 6,66. Col. 10, Ln. 25-32. Although nylon 6, nylon 6,6 and nylon 6,66 are semicrystalline polymers, their degree of crystallinity is greatly reduced when the whole film undergoes, the water quenching method. The reason why the nylon outer layer does not act as a moisture barrier layer is reasonably due to the decrease of crystallinity of the whole nylon blend of the outer layer.

In addition to the outer layer, the amorphous nylon copolymer is also a component of nylon inner layer (21) and (22) which are made up of a blend containing up to 35% of the amorphous nylon copolymer. Col. 11, Ln. 27-31. Hence, Shepard's explicit teaching is that the nylon inner layers are made up of an at least partially amorphous polymer blend. Additionally, the physical properties of the blend of layers (21) and (22) are not explained at all. Thus, it logically follows that the rapid quenching also affects the said nylon in layers (21) and (22) and makes them amorphous similar to the nylon in layers (15) and (25). As a consequence the degree of crystallinity of the polymer blend becomes lower.

Also, as mentioned above, Shepard explicitly states that the amorphous nylon copolymers do not act as moisture barrier layers. Thus, it follows that layers (21) and (22)

are only poorly effective as moisture barriers.

Furthermore, the welding layer and adhesive layers are substantially amorphous and therefore they exhibit a low Young's modulus. Hence the films disclosed in the cited prior art comprise at most only two layers (21 and 22) have higher values of Young's modulus than the other layers (i.e. the amorphous layers welding layer and adhesive layers). Layers 21 and 22 are placed inside the film, more precisely they are placed at both sides of layer 20, i.e. the middle layer. In other words, since layers 21 and 22 adjoin layer 20, the seven-layer film is symmetrical. Consequently, the configuration of the said prior art film is such that it is not, or hardly, subject to the curling phenomenon.

Moreover, it is important to note that the all the aforementioned elements which are absent from Shepard are also not disclosed or suggested by Dupont.

In Contrast to the film disclosed in Shepard, the film of the present invention exhibits an outer layer which is made up of a semicrystalline polymer, having a high melting point temperature, high mechanical strength and a higher Young's modulus. Additionally, the outer layer is also an effective moisture barrier layer.

Not only does Shepard not disclose or suggest these properties, but assuming that Shepard did provide such a disclosure, which it does not, it would no longer exhibit the desired optical properties which are among its primary objects. Moreover, Shepard does not address or even mention the problem of curling which is addressed and solved by the inventive arrangement and composition of the presently claimed film.

Thus, Shepard fails to provide a teaching or suggestion which would motivate one of ordinary skill in the art to arrive at the presently claimed invention.

Therefore, because both Shepard and DUPONT fail to disclose or suggest several

elements claimed in currently amended independent claims 49, 58 and 59 from which all other claims depend, and because neither reference provides a teaching, suggestion or motivation which would lead one of ordinary skill in the art to arrive at the presently claimed invention, none of the claims currently in the case are rendered obvious in view of either Shepard or DUPONT alone, or any combination thereof.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested.

No new matter has been added.

If any issues remain, the Examiner is respectfully invited to contact the undersigned at the number below, to advance the application to allowance.

Respectfully submitted,
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